

PIPER FIELD NOTES

SUMMARY

On 04/10/2020 at about 1332 MDT, a 1979 PA-32RT-300T *Turbo Lance II* crashed during climb onto Jicarita Peak near Angostura, NM. The impact with and subsequent slide down the slope of the peak substantially damaged the aircraft. There was no post-crash fire. The Instrument Rated Commercial Pilot, who was the sole occupant of the aircraft, received minor injuries.

AIRCRAFT INFORMATION

The aircraft was a 1979 PA-32RT-300T *Turbo Lance II*. No prior incident or accident history was uncovered in the NTSB or FAA AIDS database.

Damage to the Aircraft

The aircraft suffered substantial damage to its fuselage, wings, and empennage.

Other Damage

No other damage to property was reported.

WRECKAGE/IMPACT INFORMATION

According to the pilot, the aircraft was force landed on a snowbank on the northwest face of Jicarita Peak, a 12,835 foot tall peak in the Sangre de Cristo mountains east of Los Alamos. The pilot indicated that after the landing, the aircraft fuselage slid and rolled down the snowy mountainside, shedding its wings. A picture taken by the pilot shows the aircraft fuselage upright on a snowy slope. The aircraft was recovered from the accident site and transported to Air Transport, Phoenix, AZ, where the following observations were recorded.

Fuselage

The fuselage remained generally intact, however areas of wrinkling, scraping, and deformation were noted. The main cabin door remained within the doorframe. The aft cabin door was impact damaged and separated from the frame. Both forward and aft baggage doors remained in their frames, were latched closed, and showed no apparent damage. The cabin area appeared free from obvious deformation. The seats remained mounted to the seat rails and appeared undamaged. The left front #1 shoulder harness remained locked to the lap belt. The #1 lap belts remained anchored to structure and were unbuckled. The #1 shoulder harness inertia reel functioned as intended when tested. The #2 shoulder harness was unlatched from the lap belt and the inertia reel functioned as intended when tested. The #2 lap belt was buckled and remained anchored to structure. The safety belts for seats #3 through #6 were found buckled and anchored to structure.

The left windscreen displayed a series of cracks radiating from the center of the screen. The left side of the instrument panel eyebrow was crushed forward. The left sun visor was broken off and strands of hair were found stuck to the attachment arms.

The instrument panel and instruments appeared undamaged. The radios were absent from the radio racks. The tachometer needle rested at its low stop and the recording window read 3575.43. The landing gear handle was down. The engine control levers appeared undamaged; the throttle and propeller levers were positioned forward, and the mixture lever was in the idle cutoff position. The cowl flap lever was in the closed position. The key was absent from the magneto switch, and the switch was in the off position. The ELT remote switch was in the on position.

The fuel selector handle displayed no apparent damage. The handle was in an intermediate position near the left detent. When moved, the fuel selector handle moved freely into the left and right positions and the guard to off functioned. Each tank position had a tactile detent. The fuel sump lever cover was still in place and door sprung closed. When the center cabin floor was removed, a long screwdriver was found adjacent to the fuel selector valve. The fuel selector handle was again moved and no jamming or interference with the screwdriver was observed. Fuel was observed within the fuel selector bowl, and the bowl screen was free from blockage. The fuel selector valve was removed and tested with light air pressure; no defects were noted.

The electric fuel pump remained in place within the cabin floor, and its fuel lines remained connected. When the fuel pump inlet line was submerged in a bucket of AvGas and the fuel pump selected on, fuel sprayed from the electric fuel pump outlet line.

The tee bar remained in place forward of the instrument panel; it appeared undamaged. The left yoke was broken from the tee bar at the universal joint. The right yoke remained mounted to the tee bar. The aileron chain had fallen off the tee bar sprockets and was observed hanging over the left rudder pedals. The aileron control cables could be traced through impact separations to the ailerons. The stabilator cables remained mounted to the tee bar and could be traced through the fuselage to the stabilator bellcrank. The rudder pedals displayed no obvious damage, and the rudder cables remained attached. The rudder cables could be traced through the fuselage to the rudder control sector. The flap handle was in the stowed (flaps retracted) position and the flap control cable remained connected to the flap torque tube. The flap torque tube was deformed, and the end brackets were in a position roughly correlating to a setting of 10° of flap extension.

Left Wing

The left wing had separated from the fuselage at the wing root. The wing was fractured chordwise at about Wing Station (WS) 147. The main wing spar separation surfaces displayed matte, granular fracture faces. The wing leading edge was accordion crushed aft to the main wing spar and several semi-circular crush impressions were observed. The landing gear remained mounted to the wing and was observed within the landing gear well.

The aileron was fragmented. The outboard end of the aileron remained attached to the outboard wing fragment, and a small portion of the inboard aileron end remained attached to the inboard wing section. The aileron bellcrank and stops remained in place within the wing and appeared free from damage. The aileron control cables remained attached to the bellcrank and could be traced through the wing to broomstraw cable separations near the wing root. Cable tearing to the wing root was also present. The wing flap remained attached to the inboard wing section and was impact damaged.

The fuel tanks remained mounted to the wing. The inboard fuel tank was impact damaged and crushed. The outboard fuel tank displayed a semi-circular crush impression to the leading edge. The fuel cap remained in place within the fuel filler neck.

Right Wing

The right wing was separated from the fuselage at the wing root and featured numerous breaks. The wing leading edge was accordion crushed aft. The outboard wing from about WS 116 to the tip was fragmented. The landing gear remained mounted to the wing and was observed to be extended.

The aileron was impact separated from the wing and only small fragments were observed during examination. The aileron bellcrank was impact damaged. The aileron control stops were unremarkable. The aileron control cables remained attached to the bellcrank and could be traced through the wing to broomstraw cable separations. The wing flap remained attached to the inboard wing section and was impact damaged.

The inboard fuel tank remained attached to the wing and was crushed. The outboard fuel tank was fragmented, and the skin was torn from the wing. The fuel cap remained in place within the fuel filler neck.

Empennage

The empennage remained attached to the fuselage. Some buckling, scraping, and deformation of the fuselage was noted.

Most of the vertical stabilizer remained attached to the empennage, however some of the upper vertical stabilizer along with the stabilator and rudder were separated. The impact damaged rudder control sector remained mounted to the vertical stabilizer. The rudder control stops appeared undamaged.

The stabilator was impact damaged and the leading edge displayed aft crushing. The stabilator trim tab was deformed. The pitch trim barrel displayed 6 threads, or about 1 inch of thread extension, correlating to a neutral pitch trim setting.

The ELT antenna remained mounted to the upper empennage surface and appeared free from damage. The adjacent comm antenna was impact separated. The coaxial cable from the ELT antenna remained attached to the antenna but was not connected to the ELT. The TSO C126b ELT remained undamaged within its tray and its switch was in the ARM position. A coaxial cable of unknown origin as well as a d-sub connector remained connected to the ELT. The ELT was switched to on, but the light did not illuminate.

Engine

The engine, engine accessories, fluid hoses, and engine mount had been removed from the airframe at the firewall during recovery. The engine cowling had been removed from the engine and displayed impact damage. The "Turbo" decal was not observed on the upper engine cowl. The engine appeared generally free from impact damage except for some deformation to the exhaust and intake risers.

Examination of the engine revealed thumb compression on all cylinders and appropriate movement of the rocker arms and accessories during rotation of the crankshaft. The dual magneto appeared undamaged and produced spark at all leads when tested. The spark plugs displayed normal wear when compared to the Champion Check-a-Plug chart. The fuel servo inlet screen was free from blockages, and the engine control cable ends remained mounted to the servo control arms. The oil sump screen and filter were clean. The engine induction air box was impact damaged and filled with pine needles, however no blockages or degradation were observed to the foam filter. The alternate air door sprung open when light pressure was applied.

Propeller

The 3-blade propeller remained mounted to the engine. All three blades were bent aft about 45°. Chordwise polishing and chipping were noted at the blade tips.

TESTS AND RESEARCH

A JP Instruments Engine Data Monitor display, bearing Serial Number 38408, as well as the associated wiring harnesses was removed from the instrument panel and retained for data retrieval.